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THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF BASIC SCIENCES
ACADEMIC YEAR 2018/2019 – SEMESTER II



00162

BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS
BSU4245 - HUMAN PHYSIOLOGY – LEVEL 4
CONTINUOUS ASSESSMENT I (NBT I)

DURATION: ONE HOUR

DATE: 08th JULY 2019

TIME: 09.00 AM –10.00 AM

REGISTRATION NO:

IMPORTANT INSTRUCTIONS/ INFORMATIONS TO CANDIDATES

- This question paper consists of **10** pages with **20 Multiple Choice Questions (Part A)** and **02 Structured Essay Questions (Part B)**.
- Write your Registration Number in the space provided.
- Answer **ALL** questions.
- **Multiple Choice Questions (Part A):** Indicate answers in the answer sheet provided by placing a cross (X) in **INK** in the relevant cage. (Answers in pencil will **NOT** be marked)
- **Structured Essay Questions (Part B):** Write answers within the space provided.
- Do not remove any page/part of this question paper from the examination hall.
- Mobile phones and any other electronic equipment are **NOT** allowed. Leave them outside.
- Please fill the address sheet. (See last page)

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REGISTRATION NO:

ANSWER SHEET FOR PART A

Q. No.	(a)	(b)	(c)	(d)
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REGISTRATION NO:

Part A – Multiple Choice Questions*(20 marks)*

Choose the most suitable / best answer and indicate with a 'X' in the answer sheet provided.

1. Structural levels of organization of the human body correctly include
 - a) cell, tissue, system and organ
 - b) tissue, cell, organ and system
 - c) organ, tissue, system and cell
 - d) cell, tissue, organ and system

2. The best example of positive feedback effect is
 - a) blood pressure regulation
 - b) normal parturition (child birth)
 - c) blood sugar regulation
 - d) thermoregulation

3. Digestive system is typically lined by
 - a) stratified squamous epithelium
 - b) simple squamous epithelium
 - c) simple columnar epithelium
 - d) simple cuboidal epithelium

4. Which one of the following is correct regarding the characteristic of an enzyme?
 - a) Lipid molecules
 - b) It combines with a substrate in order to catalyze the reaction
 - c) It is not reusable
 - d) It requires in large amounts to catalyze a reaction

5. The main component of cell membrane is
 - a) carbohydrates
 - b) glycoproteins
 - c) cholesterol
 - d) phospholipids

6. Mitochondria
- a) act as the site of protein synthesis
 - b) are the main organelle that produce ATP
 - c) function as a transport system
 - d) are covered by a single membrane
7. Cell division by meiosis
- a) results 46 chromosomes in daughter cells
 - b) occurs in the ovaries
 - c) produces two daughter cells
 - d) involves one nuclear division
8. Exocytosis
- a) is a process in which white blood cells destroy bacteria
 - b) involves binding of substance to a carrier molecule
 - c) is the movement of molecules according to a concentration gradient
 - d) is secretion of large molecules from glands
9. Acetylcholine is
- a) a neurotransmitter
 - b) an enzyme
 - c) a hormone
 - d) an amino acid
10. The basic building block of the nervous system is
- a) astrocyte
 - b) white matter
 - c) neuron
 - d) gray matter
11. Which one of the following is correct regarding the resting membrane potential of a nerve cell?
- a) It has a positive value
 - b) It is the potential, across a neurons membrane at its resting stage
 - c) It has more negative charges in the outside of the cell membrane
 - d) It is actively involved in sending signals

12. Which one of the following is correct regarding nervous tissue?

- a) Myelin sheath decreases the speed of nerve impulses
- b) Neurons undergo mitosis
- c) Neurons are associated with electrical signalling
- d) It doesn't use chemical messengers to transmit signals

13. Cerebrospinal fluid (CSF) is produced in the

- a) spinal cord
- b) ventricles of brain
- c) cerebellum
- d) pituitary gland

14. In autonomic nervous system,

- a) sympathetic innervation decreases heart rate
- b) parasympathetic innervation dilates the pupils of the eye
- c) sympathetic innervation decreases air supply to lungs
- d) sympathetic neurones release norepinephrine

15. Somatic senses include

- a) touch
- b) smell
- c) equilibrium
- d) taste

16. Area of the eye which contains photoreceptors is in

- a) lens
- b) retina
- c) pupil
- d) sclera

17. Structure of the ear involved in hearing is

- a) organ of Corti
- b) tympanic membrane
- c) semicircular canals
- d) saccule

18. Endocrine glands include

- a) salivary
- b) adrenal
- c) sebaceous
- d) sweat

19. Regulation of the blood glucose level is the main function of

- a) aldosterone
- b) cortisol
- c) insulin
- d) epinephrine

20. A steroid hormone includes

- a) testosterone
- b) antidiuretic hormone
- c) thyroxine
- d) epinephrine

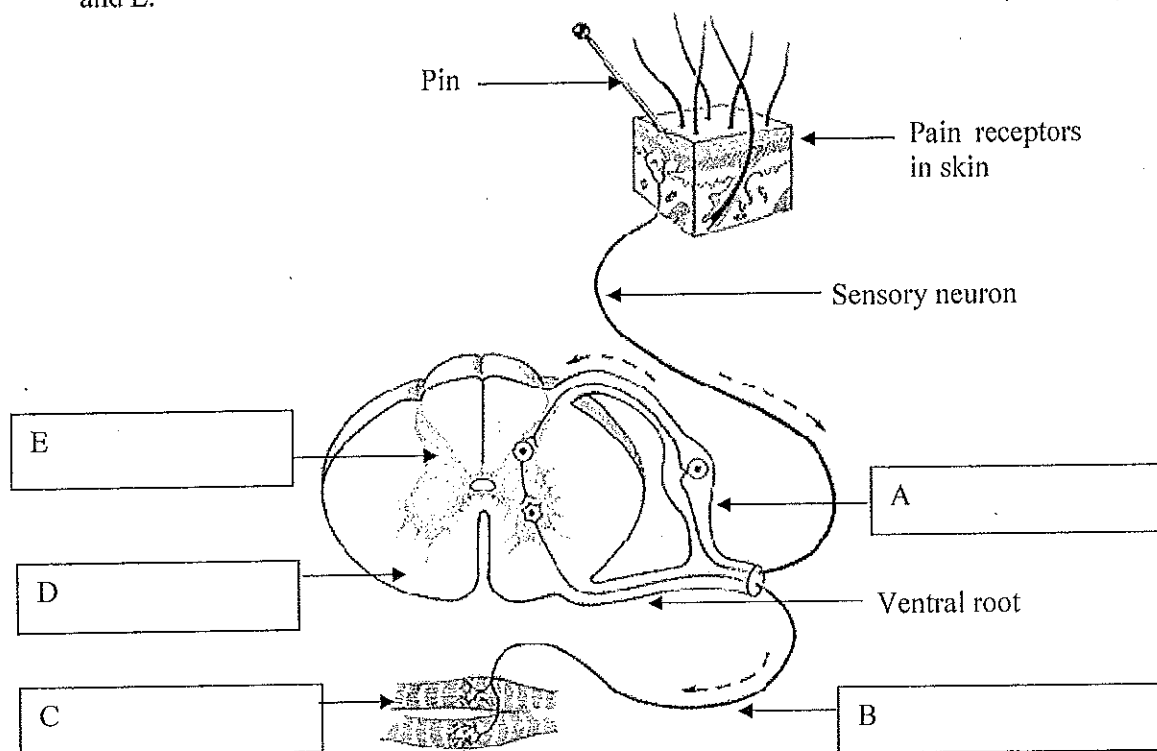
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Part B – Structured Essay Questions*(80 marks)***Write answers in the space provided.**

1. a) List five (05) types of connective tissues found in the human body. Give one example for each type that you mentioned. (10 marks)

Type	Example
I.	
II.	
III.	
IV.	
V.	

- b) A cross section of a spinal cord is given below. Identify the components in A, B, C, D and E. (10 marks)



- c) Briefly describe the events involved in excitation – contraction coupling of skeletal muscle. (10 marks)

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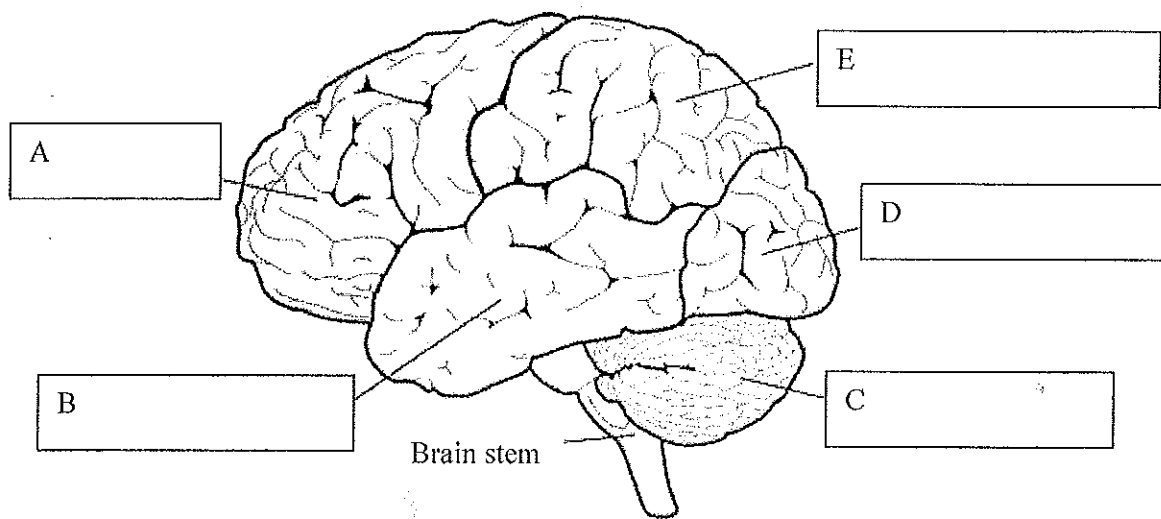
- d) Draw a clearly labelled diagram to show the arrangement of myofibrils in a sarcomere. (10 marks)

c) List five (05) types of sensory receptors in the human body.

(10 marks)

- I.
- II.
- III.
- IV.
- V.

d) Diagram of the human brain is given below. Identify the lobe/region in A, B, C, D and E.
E.



Reg. No:.....

Name:.....

Address:

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